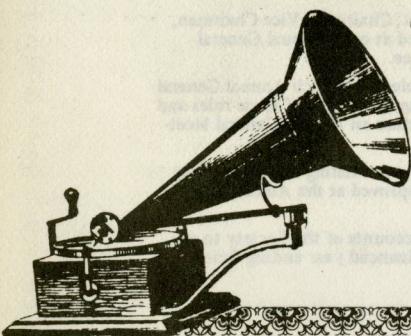
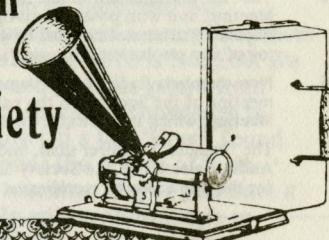


The Hillandale News



The official journal of
The City of London
Phonograph and
Gramophone Society
Inaugurated 1919



No. 99

DECEMBER 1977

A happy
Christmas
to all our
members



SOCIETY RULES

1. That the Society shall be called THE CITY OF LONDON PHONOGRAPH AND GRAMOPHONE SOCIETY, and that its objects shall be the social intercourse of its members, a study of sound reproducing apparatus, as well as its application.
2. That the Officers of the Society shall consist of a President, Vice President, Secretary, Financial Treasurer and Meetings Secretary, who shall be ex-officio members of the Committee.
3. That the management of the Society be vested in a Committee, six members to be elected at the Annual General Meeting in October, and with power to co-opt, and that its duties shall be the management of the Society.
4. That written notice must be given to the Secretary one clear month before the Annual General Meeting proposing to amend these rules.
5. New members (ladies or gentlemen) may be elected on the nomination of three members of the Society on the payment of an annual subscription of £1.00.
6. The financial Treasurer shall, once in every year, submit a statement of the Society's affairs to the Auditor elected by the Society and shall furnish a Balance Sheet for the inspection of members at each Annual General Meeting.

President: George Frow, [REDACTED] Sevenoaks, Kent
 Vice-Presidents: James F. Dennis, R.C.S., [REDACTED] Ipswich
 A.D. Besford, [REDACTED] Great Yarmouth, Norfolk
 Chairman: Christopher Proudfoot, [REDACTED] Meopham, Kent
 Vice-Chairman: Goodwin Ivey, [REDACTED] Chipstead, Surrey
 Hon. Treasurer: B.A. Williamson, [REDACTED] Liverpool
 Hon. Secretary: John McKeown, [REDACTED] St. James's, London, W.C.2
 Activist: John Carreck, [REDACTED] Chislehurst, Kent
 Hon. Members: Ernie Bayly, Dennis Harbur, George Frow, Len Watts.
 Committee: B. Raynaud, F. Andrews, J. McKeown.

TREASURER'S NOTES: In future, would members please send all money etc.) direct to the Treasurer, *together with all orders for goods*, as this will avoid double handling.

MEMBERSHIP RATES:

U.K.	£3.00 per year	U.S.A. & Canada	£6.00 Surface Mail
New Zealand Airmail	£4.00 per year		£8.00 Airmail
Australia, Japan, etc. (now payable directly to the Treasurer, as bulk subscription has ceased)	£4.00 per year		

Overseas members are requested to send STERLING DRAFTS or banknotes, as check clearances here carry a high commission rate. The Society no longer operates within the Post Office Giro system. New Zealand and Australian Postal Orders are acceptable in the U.K. To save postage in mailing receipts, these are sent out with the goods or next magazine to members. PLEASE MAKE OUT ALL CHECKS AND DRAFTS PAYABLE TO "THE CITY OF LONDON PHONOGRAPH AND GRAMOPHONE SOCIETY".

MEETINGS are held at the "John Snow" Public House, Broadwick Street, Soho, London, W.1, on the first MONDAY of every month commencing at 7.00 p.m. In addition, regular meetings are held at the following centres:

HEREFORD. Details from the Secretary, D.G. Watson, [REDACTED] Tupsley, Hereford.

MIDLANDS. Details from the Secretary, P. Bennett, [REDACTED] Goldthorn Park, Wolverhampton, Staffs, WV4 5DE. Phone: [REDACTED]

MANCHESTER. Details from the Secretary, Clive Thompson, [REDACTED] Mosley 'Common, Worsley, Lancs.

VICTORIA, AUSTRALIA. Details from C. Gracie, [REDACTED], Cavendish, Victoria 3408, Australia.

MEMBERS PLEASE NOTE that all money should now be sent to our Treasurer, B.A. Williamson, [REDACTED], Liverpool, L16 1LA.

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THE UNIVERSITY OF CALIFORNIA SANTA BARBARA

Chairman's Chat

This is the last issue of 1977, and thus the last of the Centenary Year, although it belongs to the month of the centenary proper, Edison's first tinfoil phonograph having been completed early in December 1877. It has been a busy year, but a most enjoyable one, and the various exhibitions have given us much pleasure and enlightenment. I was unable to get to the Birmingham and Oldham shows, but have happy memories of Edinburgh, as well as our own show in London. The Science Museum's celebration still awaits us, being planned for December, and I am concerned in a minor, and somewhat commercial way, with the centenary occasion of December 6th.

All this, you might say, is enough celebrating to keep us happy for the next century, but there is yet another still to come; the next issue of 'HILLANDALE', for February 1978 is No. 100. We therefore want to make it a BUMPER ISSUE, and we require articles and pictures galore from members. Do not assume (as many seem to) that you have insufficient specialist knowledge to write an article: some of the best reading comes from those who simply tell a tale 'How I found a Junkophone in exchange for a bottle of Champagne', or simply recount the origins of their collections, or perhaps describe the repair or overhaul of a particular machine. Maybe you have a machine you cannot identify; why not send in some details, preferably with a photograph or drawing, and see if someone else can?

Pictures, articles, queries - anything for the Bumper 100th Issue of Hillendale - should be sent to Bill Brott (address inside front cover) by the end of December. And a Very Happy Christmas to you all!

Acoustic Ethereal: or the Norfolk Longhorn

On a sunny weekend in October, the Chairman and the Secretary were invited to Douglas Fitzpatrick's fine country house at the 'top end' of Norfolk, to savour the joys of the ultimate in acoustic reproduction. Students of sound reproduction theory will recall that the late Percy Wilson believed that there was a limit to the extent to which a horn could be enlarged, as too large a horn would result in the sound becoming 'lost' within it. Amazingly, this seems to have remained uncontradicted until the present decade, when Douglas Fitzpatrick, feeling that 'Hi-Fi' was not all that it was cracked up to be, decided to set about perfecting acoustic reproduction.

The resulting horn, which was only achieved after much trial and error, has an effective length of about twenty-eight feet and measures eight feet by five at the mouth. I will not go into technical details here, because I am hoping that Mr. Fitzpatrick is going to write an account of his development of this horn himself. The soundbox, a lightened and modified E.M.G. with a plastic diaphragm, lives on the end of a standard E.M.G. tone-arm, mounted in an expert cabinet with a Garrard transcription motor.

I have always felt that, allowing for the limited range, the sound that is produced by a good acoustic gramophone such as an E.M.G. or Expert is more natural than that of any electrical reproducer (to use an old-fashioned term). It is therefore very gratifying to find that this feeling is confirmed by listening to an acoustic machine which has been developed to the point where to all practical intents, the range is no longer limited. The chief restriction of what must surely be the best acoustic gramophone in the world is that it can only play records of the pre-L.P. era. I am not referring to the inconvenience of having to change the record every four minutes or so, but to the developments in recording technique over the last twenty years, which mean that that there is a great deal more in the groove of a modern record. If the information were embodied in the groove of a '78', then the 'Acoustic Ethereal' (as its creator has named it) would be able to

reproduce it: as it is, most of the records which we heard demonstrated, and which certainly showed off the instrument's capabilities best, were instrumental and vocal recordings of the late 78 period. Even 1950's pop records can be played (we heard an electric guitar through an acoustic gramophone), but large orchestras would sound limited in comparison with modern records. Sadly, because later recordings sound so superb, early acoustic records sound very disappointing by comparison, and Mr. Fitzpatrick found for this reason that playing cylinders through the horn was not a great success; he prefers to listen to these on an Edison Fireside equipped with a large flower horn (adapted from a small HMV gramophone horn, in fact) and a Model R reproducer. Excellent results are given by this arrangement, although the Edison motor cannot hope to compete with the Garrard for evenness of running. Recently, we have been feasting on talking machines in quantity, and it was a pleasant change to concentrate on quality instead during this all too brief weekend.

The Society's 100 years of Recorded Sound' Catalogue

A short appreciation by GEORGE FROW

This has been put together with a view to its becoming a general guide to the phonograph and gramophone collecting hobby, long after the Society's Centenary Exhibition is a distant memory, and twenty or thirty years hence should still be in print and helping new generations of collectors through their growing pains.

This may invite the question as to what makes it so special, and the answer is quite simply - fresh photographs, new information; not that we haven't seen some of the pictures before or read some of the facts, but a genuine attempt has been made by its author, the Society chairman Christopher Proudfoot, to give both the general and specialised collector previously hard-to-find information on his machine/s, whether it/they be an unusual continental phonograph or a portable gramophone inherited from grandmother.

The early part deals adequately with the origins of phonographs and gramophones - this is obligatory in every book on the subject - but these and succeeding pages go on to name some manufacturers of each with particular emphasis on differences in mechanical, cabinet or horn design, being extended more fully into descriptions of each of the 126 models that were on show at the Exhibition.

This does not mean that the collector worth his salt can get far without the basic "From Tin Foil to Stereo" or V.K. Chew's "Talking Machines", but the Society's booklet is a useful follow-on to either work, as well as being a grounding in itself, dispensing pedigree details of a worthy range of machines from the rather rare to the plentiful portable.

Christopher Proudfoot has deliberately turned away from mentioning records or accessories, as that side of collecting is getting adequately covered, but if it's information you seek on European and American phonographs and gramophones, cabinet, table and hornless machines, punt portables, many many HMVs, Columbias and Deccas, this is for you, and its compiler has really done the Society a long-lasting service and its members a means to see the contours of their collections.

The 41 pages of information with 64 illustrations clearly presented on A4 size paper are excellent value at this time of high-cost printing.

Price: Members	£1.28 per copy, post paid anywhere
Non-members	£1.60 per copy, post paid anywhere
Quantities of less than 20	£1.25 per copy, post extra
20 or more	£1.00 per copy, post extra

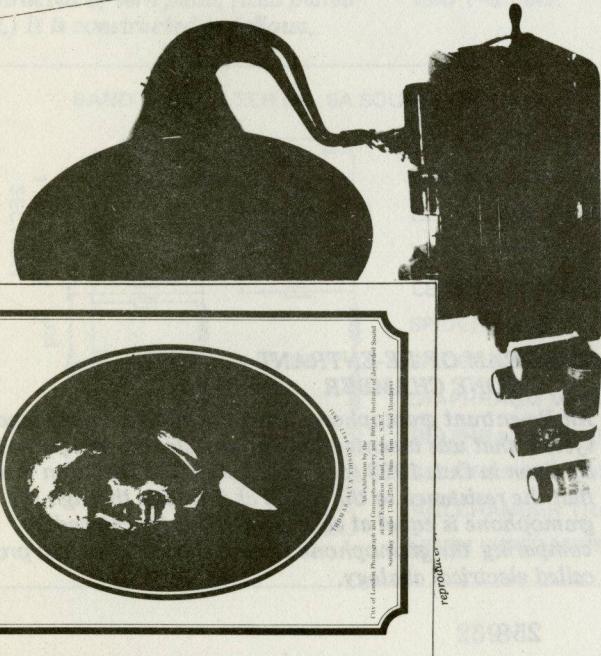


Fig. 38. Edison Disc Phonograph, Official Laboratory style, Chippendale style, circa 1922. The abnormal height of the cabinet allows for a two-tier record compartment, holding 100 of the thick discs. The distinctive lower cabinet has been removed.

20) **Edison Diamond Disc phonograph, Official Cabinet.**
Edison Model, in Chippendale Disc Laboratory - The larger and more expensive Eadson test machine was claimed to be individually and for laboratory delivery. Most machines were made in the Edison laboratory. The model in this case seems to have been the one thus designated. It is in excellent condition, though the cabinet is in need of repair. The Chippendale cabinet styles available for this model have a remote-control device for starting and stopping the motor, and a large volume control. The model has a reproducer for determining the tone of the record. The cabinet is also provided with a turntable and a small turntable for 10in. and 12in. records.

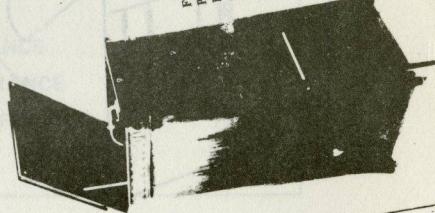


Fig. 38. Edison Disc Phonograph, Official Laboratory model, Chippendale style, circa 1922. The abnormal height of the cabinet allows a two-tier record compartment, holding 100 of the thick discs. The lower section has been removed for this illustration.

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adapted to Edison Bijou. Gramophone, heard at the drop of a coin-ab. Gramophones could version of the "Trade-Not only cylinders co-operated at the turn of a Penny, this was available at this modified for Mark." Gramophone and gramophones the advent of the Juke-City, and until the advent of the public use were made, until they were more popular on the continent of Europe than in the 1930s. It appears that they were British Isles. 1909

Trade-Mark Gramophone, by the Gramophone Company, established in 1885, when it was improved Gramophone introduced in America in 1888, was in fact the improved Gramophone made by Berliner and Johnson in U.S.A., and was stamped Berliner and Johnson 'Made in U.S.A.' The base is stamped 'Gramophone Co., 1887'. The base horn is the most valuable, although of the 'His Master's Voice' painting because of the unbroken black lacquer, and the base cost, (Fig. 8)

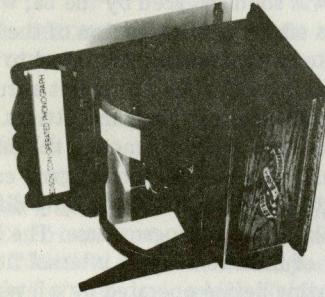
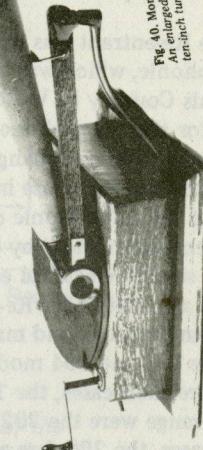


Fig. 39. Edison. 2. circa 1904
a coin-slot phonograph based on 'Gem' complete.



ten-inch (250 mm)

The Re-entrant Gramophone

by P.W. Temple

The Re-entrant was first sold in America by the Victor company in 1925 under the name of Orthophonic, which was also the name that Victor give to its electric recordings. It was introduced into this Country by Victor's English contact the Gramophone Company in Oct. 1927, as a replacement for their saxophone horn models that had to be withdrawn, because of patent infringement. The name had been changed from Orthophonic to Re-entrant as the name Orthophonic was thought to be unsuitable for use in England. Early Re-entrant models used the No. 5 soundbox, this was the same as the orthophonic design, but this was soon replaced by the 5a, which was possibly because of patent infringement by the 5. Two years after the introduction of the Re-entrant it was superseded by the smaller electrical equipment. The Re-entrant system was fitted to 6 models.

The smallest of the Re-entrant series was the 163 (The 157 is not a true re-entrant). It was issued in both oak and mahogany cases; both cases used chrome fittings. Intermediate in the range was the 193 and 194 models. These are basically the same model, the only difference between them are their cases, the 193 has an oak case and the 194 a mahogany case. The largest models in the range were the 202 and 203, as with the 193 and 194 the only difference between them are their cases, the 202 has an oak case and the 203 a mahogany case. The four largest models (193, 194, 202, 203) were issued with a variety of finishes on their internal fittings and the later versions had enclosed motors with pressure lubricating device operated by a lever on the motorboard. The largest re-entrant tone chamber used in a standard production model was fitted to the number 1 Automatic Gramophone introduced in 1928, even though it used an electric motor and record changer.

The Re-entrant Gramophone

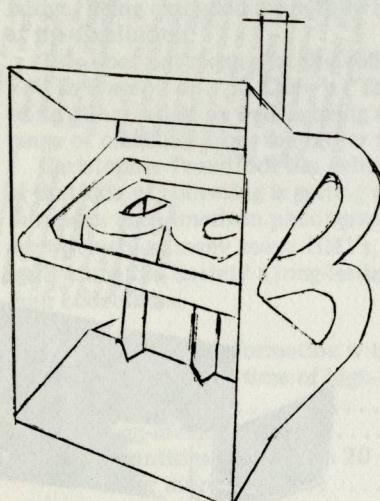


DIAGRAM OF RE-ENTRANT TONE CHAMBER

All Re-entrant gramophones used the matched impedance system that was invented by Western Electric and patented by them in Oct. 1923 (pat. nos. 230 876). This term means that the resistance to the sound as it travels through the gramophone is equal at each point. This is achieved by comparing the gramophone to an electrical circuit, a process called electrical analogy.

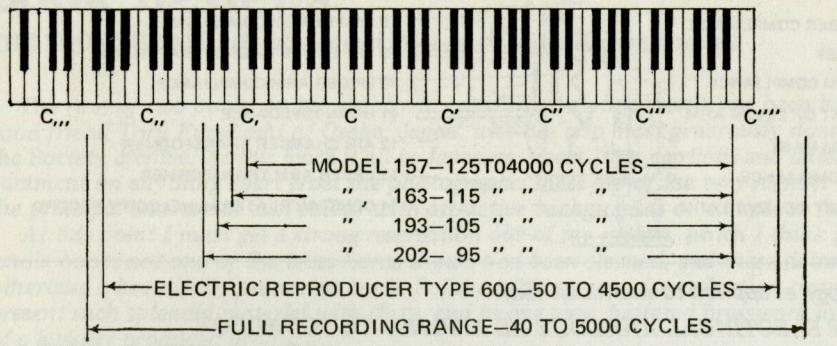


DIAGRAM SHOWING
FREQUENCIES OF
MODELS ON GRAMOPHONE
KEYBOARD

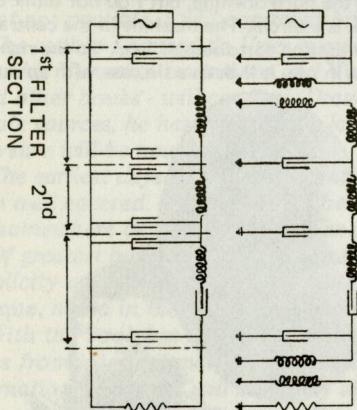
The Re-entrant horn or tone chamber was invented by Western Electric in the early 1920's (pat. nos. 252657). It is a method of folding the horn so that it will fit into a case without losing any of the horn qualities. The tone chamber is exponential and constructed of tern plate, (lead plated steel.) It is constructed as follows,

the sound enters at the back of the tone chamber where it travels through two U shaped conduits, each one of which divides into two sections one of which travels up the other of which travels down. These four conduits then all enter the common mouth of the tone chamber.

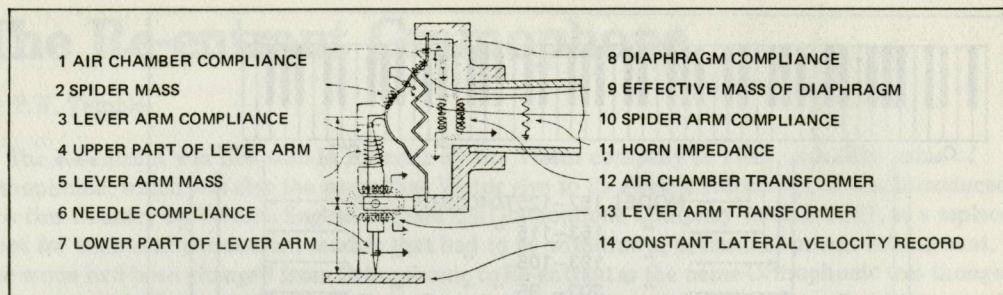
The Frequency Response

To be used with other Diagram

BAND PASS FILTER NO. 5A SOUNDBOX FILTER



CONSTANT LATERAL VELOCITY RECORD	14
NEEDLE COMPLIANCE	6
LEVER ARM TRANSFORMER	13
LEVER ARM MASS	5
LEVER ARM COMPLIANCE	3
SPIDER MASS	2
SPIDER ARM COMPLIANCE	10
DIAPHRAGM MASS	9
DIAPHRAGM COMPLIANCE	8
AID CHAMBER COMPLIANCE	1
AID CHAMBER TRANSFORMER	12
HORN IMPEDANCE	11

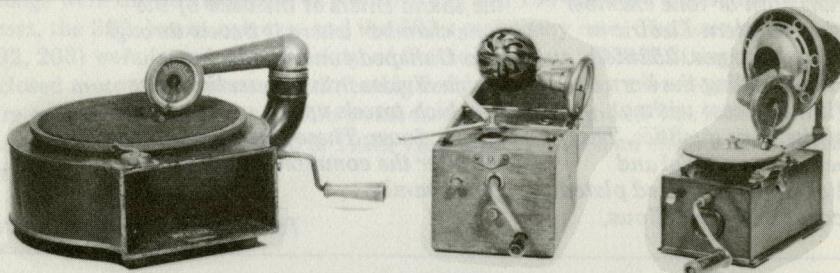


Electrical analogy as applied to soundbox (5a)

DIAGRAM OF ELECTRICAL ANALOGY AS APPLIED TO SOUNDBOX

Even though the system of matched impedance was partially used on the new style HMV models introduced in 1925, it was not fully applied to the gramophone until the introduction of the re-entrant with the all metal soundbox in 1927. The patent of which were also held by Western Electric.

I would like to thank all the people who have helped me write this article.



Three miniatures: Who can identify the one on the left? I have seen several examples, but never with a manufacturer's name. This has a Mead of Birmingham transfer in the horn opening, but I do not think they would have manufactured the machine themselves. The soundbox is a Sirola. The machine in the centre is the well-known Cameraphone, which presents its sound through an imitation tortoiseshell 'egg'. To the right is one of the little Nirona models, with a reflecting 'horn': when not in use, it lives in a tin case with an arched top, rather like a dog-kennel.

Columbia New Invincible Graphophone with tone-arm (Type BET), c.1909. The most common of the tone-arm cylinder Graphophones seems to be the New Leader (known in this country as the 'Crown'), which has a horizontal reproducer and a U-tube connector to the tone-arm. The BET retains the normal position for the Lyric reproducer; this one is also unusual among Graphophones in that it plays 4-minute cylinders. *Photos courtesy Christies*



Book Reviews

BY GEORGE FROW

THE PHONOGRAPH (Publisher and Price to be advised when known)

The first of two books on the Hobby to come my way this month has been kindly sent by my good friend Toru Funahashi of Osaka, Japan, who has also most generously donated a copy to the Society archive. As this work is all in Japanese, apart from captions and dates, I am unable to comment on anything apart from the photographs; these are of the very highest quality, and all the principal ones are in lush colour with attractive backgrounds of sumptuous furniture and fabrics.

At this point I must get a strong reservation out of my system, which I think goes against the whole book; not one of the brass horns shown had been cleaned, and these detract from what is otherwise a beautifully presented book. Polished fittings can give reflection trouble, but to present such splendid material with dirty, and in one case, battered brasswork lowers the tone of a lavishly produced product.

Altogether 34 machines are shown, phonographs and gramophones, and these belong to four or five collectors. One of them, our member Dean Nagasawa, has contributed a history of the phonograph - in Japanese of course - and these have a number of standard and original black and white photographs of personalities, machines, accessories and records.

I was particularly pleased to see a good collection of cabinet machines depicted, an Amberola 1a, two Diamond Disc machines, the Victor Credenza and HMV 203, an unusual Grafonola with inlaid front and slide-in doors, the Australian Cheney, the Brunswick Artona, and one of the most interesting, the Automatic Orthophonic Victrola.

There are a number of open-horn phonographs and gramophones, the gramophones being mostly of Victor origin - as one would expect to find in Japan - and right at the end are a couple of Pathes.

Can we look forward to the publication of an English-language edition of this colourful work?

DANK U, MENEER EDISON, by Leonard de Vries.

(a book with a 12 in. long-playing record published by Unieboek V B.V.

Nieuwe 's-Gravelandseweg 17-19, Bussum, Holland. Price not ascertained)

The second book received this month comes from Holland; one does not have to be a Rhodes Scholar to understand its title, but to give a fair appraisal of a work in an unfamiliar language is just not possible. I will comment briefly on the illustrated side and on the record.

The author Leonard de Vries is a professional writer of considerable success, as those who know his Victorian Inventions and Victorian Advertisements (both published by John Murray) - and other books - will confirm. Drawing from manufacturers', museums', this Society's and private sources, he has assembled a large quantity of photographs and drawings, many of which I am sure will be new to members.

The earliest days of the phonograph, the Bells and Tainter and Edison and his background seem well covered, and like V.K. Chew's book Talking Machines, the history is allowed to peter out somewhere before the Great War of 1914.

Of greatest interest are the pictures of central European origin, and are delightful in their simplicity or over-sentimentality of the times. As in Paul Charbon's Le Phonographe a la Belle Epoque, noted in the last issue, the collector's heart will rejoice to see this new material.

With the book has come an H.M.V. compilation of early recordings, the principal side having items from international historic sources, the reverse containing pioneer Dutch performers. This international material will be nearly all familiar, but a happy inclusion is "The Song of Mister Phonograph" rendered by one of the author's family. A nice touch is the label on this 'His Master's Voice' record showing what might have been if W.B. Owen had accepted Francis Barraud's original painting.

Leonard de Vries, who introduces the items on the first side of the record, might like to be reminded that the Lord Stanley (1841-1908) was the Governor General of Canada (1888 - 1893) and was not the Henry Morton Stanley who went to find Livingstone. This is not an uncommon slip, and Stanley's recording was one of the very earliest to have survived.

I believe and hope this book (if not the record) will be appearing one day in an English version when perhaps there may be an opportunity to give an extended impression of its contents.

Extract from:-

Crowded Nights -and days

AN UNCONVENTIONAL PAGEANT

by

ARTHUR CROXTON 1930

As I entered the courtyard of the Savoy, a voice called out "Croxton, spare me a minute, will you?" Turning round I saw the spectacular form of the popular and genial American, Colonel Gouraud (now gone to his rest), then an impressive figure in London, whose name will be for ever associated with the introduction of the Edison phonograph into this country, and a personal friend of the wizard inventor himself. It was his mission to tell Europe of the wonders of Edison's work, and very successful he was in doing so; many great men were destined to speak into the invention and have their voices preserved for ever, and I believe Colonel Gouraud gathered records of the voices of Lord Tennyson, Mr. Gladstone, and many others—even including mine. He was a gallant gentleman, a born adventurer in the best sense of the word. I presented my friends, and we proceeded to the Colonel's private suite in the hotel.

"Now then," he said, "you may not know it, but we have the Emperor of Sahara staying in the Hotel!"

"Emperor of Sahara!" we simultaneously exclaimed.

"Yes, no less a personage than the Emperor himself."

"But," said I, "there is no Empire of Sahara, and therefore, no Emperor."

"No," said Colonel Gouraud, "but there very soon will be. M. Lebaudy, the French millionaire, has arrived here, determined to occupy what he calls his possessions, the Sahara desert, regardless of any objections which may be made by the British and French Governments, and he has made me his Generalissimo of the Saharan Forces."

"On land—and sea?" I asked wickedly.

"This is a serious matter, and you can help us," went on the Colonel reprovingly. "Come and see the Emperor."

We passed along the heavily-carpeted corridors of the hotel, and were ultimately shown into the beautiful suite of rooms overlooking the river, which formed Lebaudy's State Apartments. On our way, we saw fastened on one of the doors the Emperor's proclamation for the day. It ran somewhat as follows, with the Lebaudy arms at the top:—

AT THE COURT OF THE EMPEROR OF SAHARA

"This is to inform the public that audience will be given to all and sundry at 4.30 p.m. to-day. Applications for admission must be made to the Court Chamberlain."

A gentleman in immaculate evening dress,—the Court Chamberlain, I afterwards discovered—announced our names, and in turn the Colonel presented us to the "Emperor." We were welcomed with great dignity. "We are pleased to see you," said the Emperor. Colonel Gouraud explained that possibly we might be useful to his "Imperial Majesty." The Emperor graciously agreed, and we retired from the Presence, walking backwards bowing at intervals. I was successful in leaving the room with dignity; my friend, Brice, although he had just been presented at a levee at the Court of St. James's, a few days before and ought to have known better, tripped over a carpet at the door and fell into the arms of a waiter who was bringing royal refreshments into the Imperial

suite. There was a terrible clatter, as glasses and refreshments fell to the floor.

There was a twinkle in the Colonel's eye when I asked him what was the next step. He said, "We'll go to my rooms and toast the new Empire." We did. He then unfolded his scheme for placing Lebaudy on the Saharan Throne. What he wanted was men, men of the type of the Foreign Legion, mercenaries maybe, but soldiers of fortune who would go through blood and fire for good pay. "My name," he went on, "is too well known to be associated directly with the scheme, but you, Mr. Brice, knowing the other side as well as I, might be able to assist. And you, Mr. Lynch," turning to my friend, "could probably find recruits in Dublin or Liverpool."

"But how are you to get the men from New York to Timbuctoo?"

"Well, you must charter a steam yacht—we will find the money; get your men aboard, steam out into the Atlantic and await orders."

Brice, who knew the underworld of New York as well as most men, was greatly attracted by the idea, although Lynch had his doubts. Where could the men be landed without arousing suspicion? Sahara was, of course, without a port—all roads were blocked by France, Italy and Spain. However, these doubts were brushed aside by the Colonel as irrelevant. The conversation was changed. As Commander-in-Chief of the Forces, which then consisted of himself and a young private secretary, Colonel Gouraud asked us for our opinion of the Imperial Standard which his monarch had graciously approved as the best of a number of designs submitted. It was a delicate compliment to the Western and Eastern worlds. On one side of the flag appeared the cross of Christendom and on the other the crescent of the Mohammedan faith!

In moving accents the Commander-in-Chief remarked that, if needs must, he would fight to the last man for his Emperor, and die with the cross and crescent on his breast. To convince us, he reclined upon his bed in the Imperial Suite, and appealed to us, "Is it not magnificent?" It was a magnificent spectacle, but it was not yet War.

In the meantime, my American friend, Brice, had been thinking. He said he was prepared to find a portion of the Army from among his Tenderloin "friends" on terms to be discussed—he suggested an immediate cash payment of £100,000—and that he must also have the rank of Lieutenant-General in the Army, his only superior officer to be the Colonel as Generalissimo of the Forces. His idea was that the recruits should modestly and quietly leave New York in ones and twos for the Sahara, as simple, quiet, well-mannered tourists. Unhappily, the deal did not go through—it was a question of price! Why, asked Brice, when hundreds of pounds a day were probably being spent on keeping up the Imperial throne at the Savoy, should the "Emperor" query the expenditure of another paltry hundred thousand? The answer was not forthcoming.

Alas, before we could make any further progress, troublous storms blew over the sunny sky of the Saharan Empire. "His Majesty" left for Paris, the court of the Savoy broke up and now there was no hope of the invasion of the Sahara and the foundation of the Empire of the cross and the crescent. But let me whisper of the real scheme which my friend Brice had up his sleeve. His picked corps, engaged to form the bodyguard of the Emperor, were in his pocket, pledged to follow him, and him only, through thick and thin. It might, therefore, have happened that on the arrival of the Emperor with his suite in the Empire's capital—wherever that was—an insurrection would follow, the Emperor and his commander-in-chief would be taken prisoners, and Brice would assume the throne! But the Empire all came to naught—Gouraud is dead—Brice is dead—Lynch is dead; and the following from the *Daily Sketch* of January 5th, 1925, brings the story of the poor "Emperor" up to date:

"STATE WINDFALL £400,000 in duties from 'Emperor's' Estate.

"LEBAUDY'S MILLIONS. "Discovery of Fortune deposited in London Bank.

"Thanks to the cleverly planned financial arrangements of Jacques Lebaudy, the self-styled Emperor of Sahara, the English Exchequer will receive an unexpected windfall of over £400,000. Lebaudy was shot by his wife at Long Island, U.S.A., four years ago. A very wealthy man, the

'Emperor' is said to have died worth thirty-seven million dollars (over £7,000,000). Wide-awake to the danger of keeping all his financial eggs in one basket, he held valuable securities and investments in many countries. It has just become known that a London Bank holds investments and securities in his name totalling approximately £1,400,000. Death duties payable to the English Exchequer will amount, the *Daily Sketch* is informed, to £400,713."

Awkward Squad by George Frow

If a prize were to be awarded to the phonograph company that issued machines and records in the greatest variety bordering on caprice and abandon, I think it would have gone to Pathe Freres. This is not intended as serious criticism - let our French Members be assured - but a firm that marketed *at least* three diameters of cylinder and seven of disc, in addition to vast numbers of models of phonographs and disc machines is, to put it mildly, making things very difficult for the researcher. The numbering system on the Pathe discs too, is fiendishly difficult for laymen to understand and we must hope that one day comprehensive books will be published on the Pathe machines and their records.

By comparison the Edison Company is 'a piece of cake', the machines are numbered and modelled clearly and logically, so are the accessories and the records, and if a Model A and Model D of an item is known, a deep-enough dig will usually unearth a Model B and C in the end - no number was ever thrown away, nor were left-overs at the end of a production wasted; the parts turned up in another guise. In contrast, Columbia and the Graphophones had much of the waywardness of Pathe, although there appears to have been more system with machine designation, but from showing the way initially with the "Eagle" layout, many of the machines that followed had the 'me too' look - just keeping up with the competitors.

This go-it-alone peculiarity of Pathe turned up in another of their business interests - the home movies - and time and again if this aspect of Pathe Freres' trading is studied, one gets the feeling that it had all been done before in their phonograph business.

While not now a Pathescope owner, I have when much younger collected the little 30 ft. and 60 ft. film cassettes and various bits of information from the side of the road, from most of which sources cannot now be remembered.

Pathescope, a subsidiary of Pathe Freres, was formed in 1912, and the "Kok" projector was a hand-wound self-contained machine with its own generator for the electric lamp. This projector used a 28mm film which seems to have been a width peculiar to it, and the first of three Pathe-only sizes.

It was soon obvious that a cheaper and more popular range of films and projector were needed, and in 1921 experiments were made to slit a 35mm film into three equal strips of 9.5mm width each. This left only 6.5mm for pilot perforations to be punched down either side. By means of lenses and prism the image from a master 35 or 16mm film could now be beamed on to the 28.5mm emulsioned surface, after which it could be slit into 9.5mm negatives, and these perforated down the centre on the line between each frame. To project this film, Louis Didier had in 1922 invented a hand-cranked projector, a camera for this size of film being invented by Arthur Newman and reversal film in the same year made possible cheaper home movies.

The films, both prints and unexposed stock, were sold in metal cassettes of 30 and 60 ft. capacity, into which they were re-wound after projection or exposure. Early feature films were issued on multiple cassettes, which until 300 ft. 'super reels' appeared in 1931, must have made for a very tedious evening. "Les Miserables" for instance, was available on 30-60 ft. cassettes; Pathescope however had a first-class catalogue, and such continental epics as "The Cabinet of Dr. Caligari", "Metropolis", "The Blue Light", "The White Hell of Pitz Palu" and "Siegfried" are examples of some of the quality material offered, in fact several early silent films have survived only on the Pathe 9.5mm size and been 'blown up' again for commercial showing. In Great

Britain many indigenous short and feature films were offered as well as the weekly Pathé Gazette and Pictorials in monthly compilations.

Pathescope had something absolutely peculiar to itself - the notched title films - wherein, to save material, titles were limited to not more than a few frames and at this point one or more notices were inserted, these stopping the film in the gate and allowing the title to be read and starting again on the pressing of a lever by the operator. Popular projectors were called the "Elf" and the "Imp", and the last for notched films were marketed in 1937.

In 1934 a third Pathé-only size film comes to notice, when the 17.5 mm sound production was taken over by Pathescope from Pathé Pictures. This of course was from 35mm stock slit into halves with perforations along one edge and sound track along the other, the stars of the day such as Gracie Fields and George Formby could now speak and sing in the home as well as be seen in their latest comedies. 9.5mm Pathescope sound seems to have been first mentioned in 1936, but not marketed until the Spring of 1938.

After the last war interest in Pathé 9.5mm fell sharply with the new general size of 8mm, (a slit 16mm), stealing the home movies market, and the final Pathescope catalogue appeared in 1959, the last triple negative being made at that time; the Company's large works at Cricklewood closed and were sold - they had set up there in 1931 - but enthusiasts retrieved what they could of the 9.5mm film processing machines and limited production has been achieved since. It is said that those with 9.5mm cine cameras can now buy film stock.

Members may well ask what all this has to do with phonographs and gramophones, but those who know the vagaries of the Pathé Frères system will surely recognise it all again reflected in Pathescope film activities - and it should not be forgotten that Pathé's home town is Paris, not London, so the varieties of production that went on there could be even more assorted! Perhaps one of our French Members could enlighten us?

Andy's Snippets Dec. 6 1902

Considerable enjoyment may be afforded during the Christmas holidays in making records. I suppose there is no time in the year when so many relatives and friends meet as this, and to make a permanent record of a song or witty speech, when the only opportunity in the year occurs must of necessity prove both desirable and amusing.

* * *

There are a number of hints which amateurs in the art of recording will do well to bear in mind. Firstly, the singer or speaker must be impressed not to shout, nor to put his or her mouth too close to the recording trumpet. The mouth should always be two or three inches from the bell of the trumpet for the best results.

* * *

Secondly, the blank cylinder should always be set in motion and revolve about half-a-dozen times before commencing the record, so that the sapphire gets a fair start in advance. Otherwise, the record will be marred by the preliminary friction which is caused by the cutter in getting adapted to the cylinder.

* * *

The loudest records in the small size are produced by carefully timing the revolutions of the cylinder to 160 per minute. The Concert Grand cylinders, being larger, and having a corresponding larger area to cover in a single revolution, must by necessity revolve less rapidly, and the best results from the large cylinders are to be got by timing the revolutions to 120 per minute.

* * *

The best means of making a spoken record is through a flexible tube with a vulcanite mouth instead of a trumpet. There is less metallic resonance and the inflections of the voice are more natural. The stronger the voice, the more distant should the mouth of the speaker be placed from the mouth of the tube and *vice versa*. A brass instrumental solo should be removed still farther, and two feet is not too great a distance for a cornet solo. But there is no inflexible rule, because so much also depends upon the elasticity or the stiffness of the diaphragm used, and there are not two exactly alike. The thinner the glass the better for reproducing purposes, but for recording a certain stiffness is preferable, in order to avoid "blasting."



An old fashioned gramophone given to 20-year-old John Astin, of Bilton, ten years ago, aroused his interest in "talking machines". Now he has a collection of gramophones covering their development over the first half of this century.

This month, interesting machines from his collection can be seen in an exhibition staged in the Nidderdale Museum at Pateley Bridge. The exhibition will run until August 21.

"It was in August 1877 that Edison first captured the human voice on tin foil," says Mr. Astin, "I wanted to do something to celebrate the centenary, and thought my collection would be interesting for others to see. I have collected around 20 old machines over the years, and had to restore many of them. Some were almost unrecognisable being covered in grime or rust, but the majority of them are now in working order."

The exhibition opened on Saturday and over the weekend the voice of Florrie Forde the famous singer of the early 1900's, was reproduced on a "talking machine" which was made during her early life as a singer.

A beautifully restored Edison Standard Phonograph, circa 1900, reproduced her voice from a shellac cylinder driven by a clockwork motor, the sound coming out of a shiny metal horn on top of the machine and picked off the cylinder by a sapphire stylus fixed in a reproducer at the base of the horn.

By using an adaptor the machine could also record.

The Phonograph is the pride of Mr. John Astin's large collection. His father, Mr. Bill Astin, helps John find and restore the machines.

The collection is kept at their home, in Meadow View, Harrogate, and some of the machines are taken by father and son to use in their talks to any interested society's or organisations interested in the development of the gramophone.

The Nidderdale Museum is open each day in summer, between 2 p.m. and 5 p.m. Admission is 10p for adults and 5p for O.A.P.s and children. The gramophone exhibition is one of the extra features complementary to the extensive displays covering the industrial and domestic history of Nidderdale.

from the HARROGATE HERALD Aug. 10th 1977

Holiday Surprise

 by Steve Jellyman

Whilst on holiday in the South of France, to my great surprise I came across a "Musee du Phonographee et de la Musique Mechanique" in a beautiful setting in the hills behind St. Maxime.

The owners, Monsieur et Madame Munsch, greeted us as we entered the large stone built barn which houses the collection, and immediately gave us a tune on a barrel piano as an 'hors d'oeuvre'!

The first machines we saw were the gramophones and phonographs which were displayed before us in a breath-taking panorama of horns of all colours and sizes. The two prized specimens were displayed in a glass case. These were a small Tin-Foil phonograph and a "Lioret No. 2" in fine condition which plays the little 'cotton reel' celluloid cylinders. We were told that even in France "Lioret" machines are "tres, tres rare"!! In particular the little "Lioret" "Le Merveilleux" cardboard and wood phonograph had eluded the collection for many years.

A black painted "Pathe Gaulois" was displayed. I had one of these in my possession at one time painted green, but I was told that they were also made in red and grey. The most spectacular part of this phonograph was the horn - made of crystal Glass. I have never seen a glass horn in Britain, yet they graced two machines at this museum.

The other was to me the prettiest phonograph of the collection, the Girard "Le Menestral", of which there were two examples. This small French made phonograph which I had not seen before, had a beautiful art nouveau cast cabinet, and looked fine with its spiralled glass horn.

As to be expected, the greater part of the talking machine collection was made up of "Pathe". All the familiar machines were on show, including many with the elegant Hunting horns peculiar to "Pathe".

A most unusual and intriguing example was the "Pathegraph", a large gramophone with a reflector in lid type of horn apparently used for language tuition. From the illustration it will be seen that, whilst the record plays, a reel of paper unwinds and displays the relevant words as they are played on the record. This was all achieved by an ingenious gearing system and all worked off the same motor.

Another contraption was a weird and wonderful device of gears and levers, supposedly a "bead-threading machine". This incorporated a gramophone turntable with a large horn. The whole looked like a peculiar spinning wheel, but I suspect it is a product of "Le Directeur's" sense of humour.

Edison is only thinly represented. The only machine I saw was a model A. "Home." Edison machines are apparently scarce in France, no doubt due to the multitude of Pathe products available at the time.

The same can be said for "Columbia Graphophones", although a good "Twentieth Century Loud Speaking Graphophone" was displayed. This was acquired in Holland.

Vieux Phonos Musique & Jouets



Modèle N° 11 B.
Compagnie Française
du GRAMOPHONE.

Essai historique sur la
PASSIONNANTE AVENTURE
DU PHONOGRAPE "1877 - 1977"
par le

MUSÉE du PHONOGRAPE et de la
MUSIQUE MÉCANIQUE
DE SAINTE-MAXIME (Var)

Parc St Donat

Catalogue de l'Exposition

Route du Muy



CHARLES CROS

THOMAS EDISON



Musée du Phonographe
et de la Musique Mécanique
Parc de loisirs St. Donat
Route du Muy Ste Maxime (Var)

OUVERT TOUTES LES JOURS DE 10H00 à 18H00 (MARDI DE 10H00 à 17H00)

Most of the exhibits were purchased throughout Europe, but, because of the general high prices now prevailing, most were acquired some time ago.

A very rare machine was an early experimental "Berliner" gramophone. This was larger in size than the normal hand cranked version, and resembled an old bobbin winder, and was very crude in construction. Other gramophones included many of the products of the "Compagnie Française du Gramophone". These included many of the familiar 'Monarch' type machines, but several were in more elaborate cabinets than their British equivalents.

Among the other exhibits was an array of gramophones sporting, not unnaturally, Lumière pleated diaphragms. A fine selection of children's toy gramophones was evident.

Apart from talking machines the museum housed a very varied assortment of other mechanical antiques, including disc and cylinder music boxes, organettes of all shapes and sizes, a lovely singing bird in cage, piano players, barrel pianos and even a large "Orchestrelle" salvaged from the local church in St. Maxime.

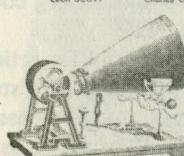
Despite the slight language problems we all had a thoroughly enjoyable afternoon which was well concluded with beers all round in the Museum bar.

For anybody taking their holiday in Southern France and would like to pay a visit to the museum, it is situated at "Parc Donat", midway between the Le Muy exit on the Autoroute and St. Maxime on the coast.

UN "ALERTE CENTENAIRE"

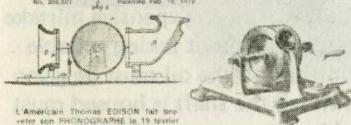
LE PHONOGRAPE (1877-1977)

SES INVENTEURS



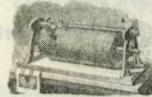
Le 16 avril 1877, le Poète français Charles CROS invente le PALEOPHONE que l'Abbé LENOIR appellera PHONOGRAPE.

T. A. EDISON
Photograph or Speaking Machine
No. 208,371
Filed Feb. 11, 1879



Le 16 avril 1877, le Poète français Charles CROS invente le PALEOPHONE que l'Abbé LENOIR appellera PHONOGRAPE.

ANNEE 1899



LE TELEGRAPHON DU RANGER POULIN.



Début de l'enregistrement magnétique sur un fil d'acier.

L'Allemand BERLINER fonde la Société ZODIOPHONE.

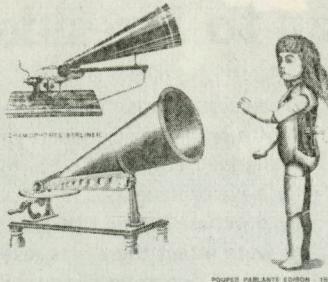


PHONOGRAPE FRANÇAIS "OMEGA" AVEC TÊTE DE GRAVURE ET TÊTE DE LECTURE

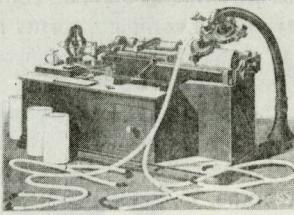


LE "POME GRAND PHONOGRAPE AMÉRICAIN DE LA COLUMBIA.

ANNEES 1889-1889



POUPÉE PARLANTE EDISON - 1889.



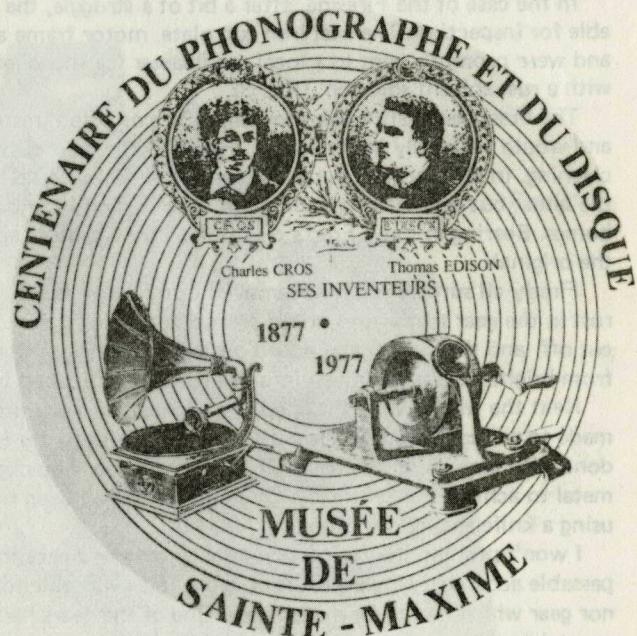
PHONOGRAPE TOUTE BOÎTE AUTOMATIQUE
ENTRETIENNE D'ORIGINE A PRIX

Pages

from

the

Catalogue



THE POSTCARD

From Scrap to Fireside

BY MIKE FIELD

"Worf a lotta money, that Guv!" the owner of Fred's Scrap Metals said expectantly. "Who to?" I murmured, turning over the rusted remains of a Fireside to peer at the solid mass which once was the motor. "There's a lotta cranks wot collects them things and they can do 'em up.", he replied. Well there was a challenge I couldn't resist! I was one of the "cranks" and if "they" could do 'em up, so could I. After a bit of haggling, "a lotta money" turned out to be £2.

However, when I got my purchase home, I began to doubt the wisdom of my impulsive action. Although all cast iron parts were intact there was severe pitting due to rust everywhere. Mild steel parts were in an advanced state of decomposition while the main spring was in dozens of pieces. Smaller steel parts such as governor springs had completely disappeared and not all of the brass items had escaped. For example a complete corner of the nameplate had corroded away. Not unnaturally every speck of paint had long since gone. Figs 1 and 2 show the mechanism as bought.

The first thing to do was to dismantle the thing to see what parts were still usable - a process not without difficulty as the screws and shafts were rusted solid. It can be an expensive mistake to attempt to drive out a rusted (or even tight) shaft from any casting without taking suitable precautions. Liberal use of penetrating oil is an essential pre-requisite and the oil must be given time to work - at least 48 hours. Then the part of the casting in which the shaft is housed must be supported against a solid anvil while the shaft is drifted out. I have seen several GEMS with broken castings as a result of failing to observe this simple precaution.

In the case of the Fireside, after a bit of a struggle, the individual parts were eventually available for inspection. The cast iron top plate, motor frame and motor side plates were all usable and were promptly sent to a local sandblaster for thorough cleaning after which they were treated with a rust solvent solution. (Fig. 3).

The brass gears, although showing some corrosion, responded to standard cleaning techniques and would obviously be re-usable. However the steel gears needed much more than simple cleaning. In the normal course of events, the gears would have been replaced by new ones cut in the lathe, but gear-cutting equipment is not exactly standard equipment in society members' homes. Bearing in mind Fred's claim that "they can do 'em up", I resolved to attempt to reclaim the originals.

Firstly all surface rust was removed using a wire brush in an electric drill. Individual chunks of rust in the gear teeth were prised out using a steel scriber. Next the badly corroded shafts were cut off and the remnant punched out of the centre of the gear wheels. New shafts were made from bright steel bars, driven into the wheels and locked in the correct position using "Loctite".

Next the wheels were "topped" - a process whereby the circumference of the gear teeth is made to run truly concentric with the shaft. Admittedly I did this in the lathe, but it could be done with care, in an electric drill and using a file. The object is to remove the very minimum of metal to achieve concentricity. Once this state had been reached, the individual teeth were re-cut using a knife shaped swiss file.

I won't pretend that this is not a fairly tedious operation and sustained care is needed to obtain passable accuracy. However it is possible and I was able to do all the gears except the small governor gear which had to be made anew. One of the gears had 4 teeth missing - they had just corroded away, but a local welder put on a "blob" of mild steel which was subsequently filed to shape, and the teeth re-cut, using that file.

I was now able to assemble the motor gear train and test it for freedom of action. Not

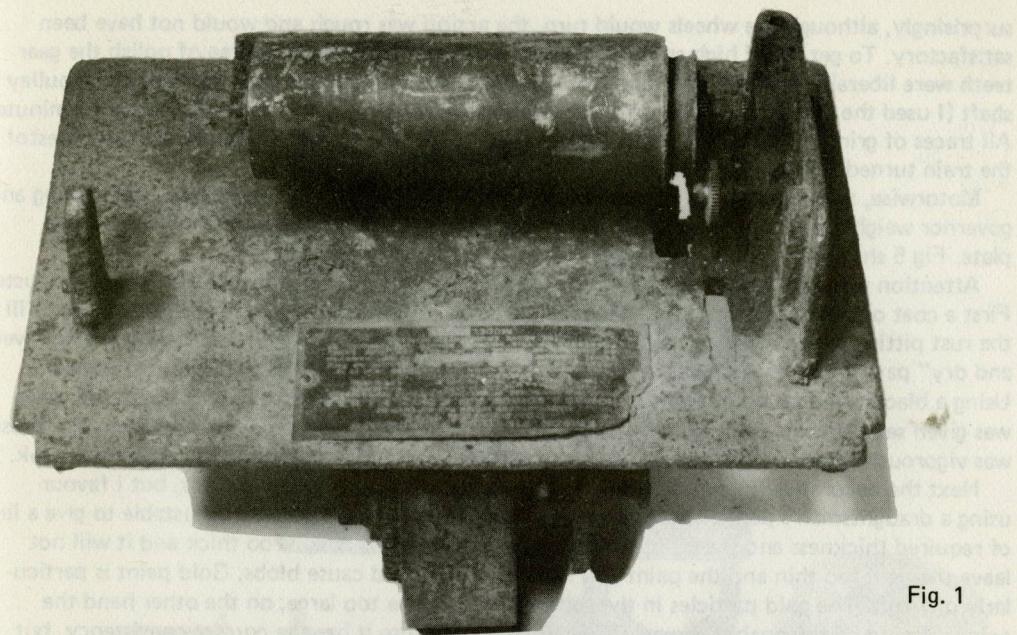


Fig. 1

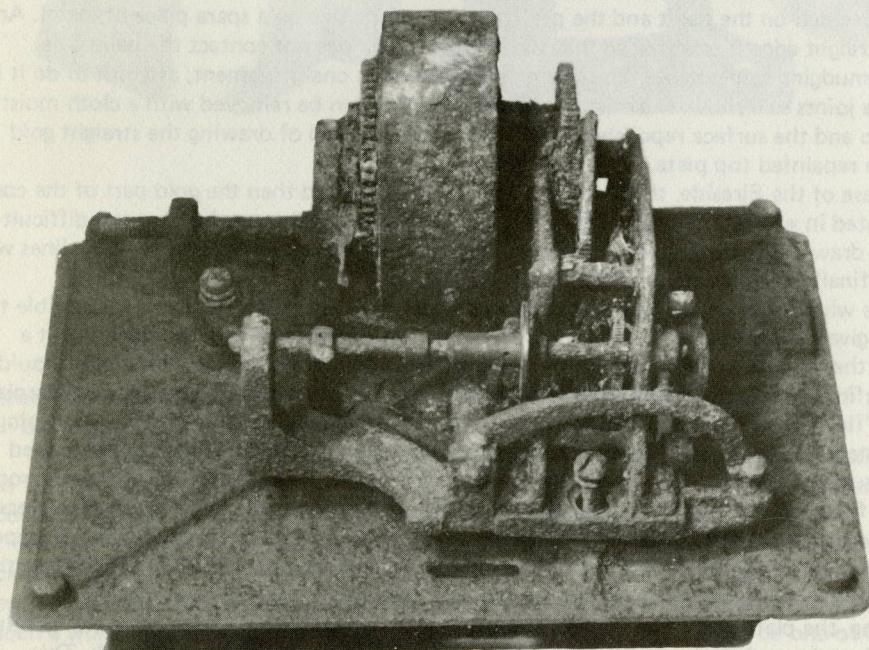


Fig. 2

surprisingly, although the wheels would turn, the action was rough and would not have been satisfactory. To get rid of high spots in the gear teeth and to impart a degree of polish the gear teeth were liberally smeared with fine valve grinding paste. Drive was then applied to the pulley shaft (I used the lathe but a hand drill is suitable) and the gear train rotated for about 15 minutes. All traces of grinding paste were then washed away in petrol, a little oil applied and hey presto! - the train turned smoothly and quietly.

Motorwise, as our American friends would have it, the rest was simple. A new main spring and governor weights and springs supplied by the Society completed the "works" under the top plate. Fig 5 shows the completed motor.

Attention was now turned to the top plate itself which had already been cleaned and de-rusted. First a coat of cellulose primers was sprayed on. Next cellulose filler was liberally applied to fill the rust pitting everywhere on the top surface. When dry, the plate was rubbed down using "wet and dry" paper. The process was repeated as necessary until the surface was flat and smooth. Using a black cellulose paint aerosol spray as sold for touching up car paintwork, the top plate was given several coats until a satisfactory "body" had been produced. After a few hours, "Brasso" was vigorously applied to "cut back" the top surface to produce a smoother and less new look.

Next the decorative lining was applied. There are several methods to do this, but I favour using a draughtsman's pen, a straight edge and a suitable paint. The pen is adjustable to give a line of required thickness and the paint must have the right consistency. Too thick and it will not leave the pen; too thin and the paint will flow too freely and cause blobs. Gold paint is particularly difficult. The gold particles in the solvent must not be too large; on the other hand the colour should be reasonably correct. I use Humbrol because it has the correct consistency, but the colour is perhaps not really yellow enough.

Having decided on the paint and the pen it is wise to practice on a spare piece of metal. An *undercut* straight edge is essential so that the bottom edge does not contact the paint line, otherwise smudging is inevitable. The line must be drawn in one movement; attempt to do it in bits and the joints will show. If a mistake is made, the line can be removed with a cloth moistened in Brasso and the surface repolished. Fig 6 shows the method of drawing the straight gold lines on the repainted top plate.

In the case of the Fireside, the gold lines were drawn first and then the gold part of the corner motifs painted in with a fine brush. Not a job after a drunken night out, but not too difficult if you *lightly* draw in the outline in pencil first. When all four corners were dry, the blue lines were drawn and finally the blue parts of the motifs painted in.

Next the whole top surface was varnished to protect the decoration (which is susceptible to oil) and to give a more authentic look. However it is vital to choose a varnish which is not a solvent for the gold (or blue) lining. Some polyurethanes will attack the gold and tests should be carried out first. Hair lacquer is quite effective but it does tend to flake when dry. The varnish should be "flowed" on and vigorous brushing is not recommended particularly over the lining.

At this stage the top looked quite reasonable, except that the corroded nameplate looked definitely out of place! To remedy this the missing part had to be replaced. Firstly the corroded edges were filed flat as far as possible without removing any part of the lettering. A thin piece of brass was cut to the size of a complete rangeplate and soldered to the back. An exact shape of the missing part was fabricated from thin brass and then soldered in position. The whole thing was trimmed up, the fixing holes drilled through the new back plate and then nickel plated. After plating, the plate was sprayed with black cellulose paint. When dry, the plate was gently rubbed with a piece of cloth, moistened in "Brasso" and fixed to a flat black of cork. This

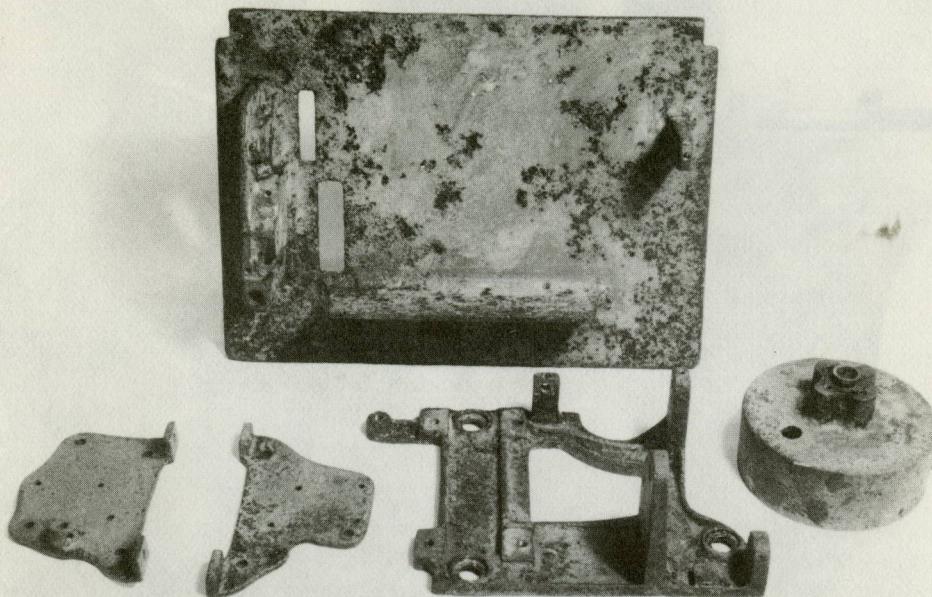


Fig. 3

procedure results in the lettering and raised surround appearing bright nickel with the background in black paint just as the original.

All that remained was to assemble the motor to the top plate and fit a few missing items such as feed screw, reproducer arm, Model K reproducer and of course a case. Items which every collector will have in the scrap box! The final result is shown in Fig 7.

Now while there may be the odd sceptic who might feel that not every collector will have such casual goodies in the scrapbox, the purpose of the article is to show that it is possible to reclaim even the most hopeless looking machine without the aid of a sophisticated workshop. Mind you such a workshop is a slight advantage and as Fred would say "you gotta be one of them cranks!".

surprisingly, although the wheels would turn, the action was rough and would not self-start. I then decided to add a flywheel to the train. I made a simple flywheel from a piece of sheet metal and mounted it on the train, as shown in Fig. 5. All gears are now in line and the train runs smoothly.

Motorwise, as on the previous model, the governor weight is mounted on the flywheel plate. Fig. 6 shows the flywheel plate with the flywheel and the motor mounted on it. The flywheel plate is secured to the flywheel using two

Fig. 5

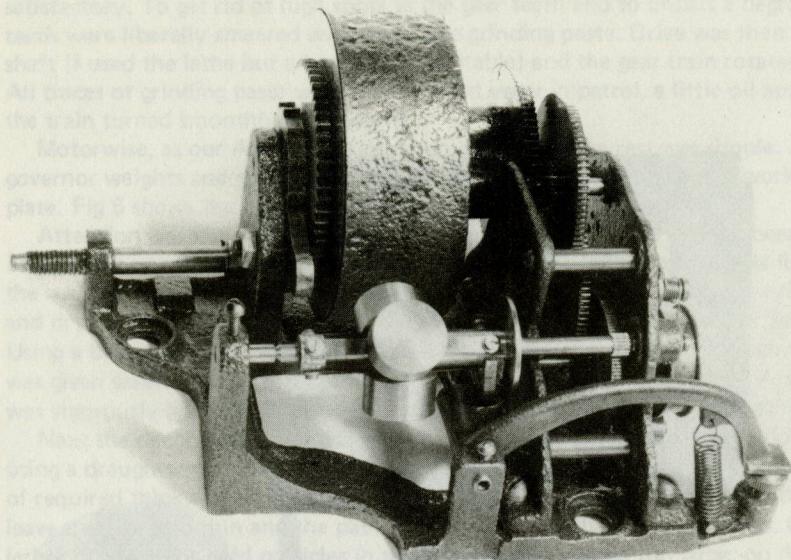
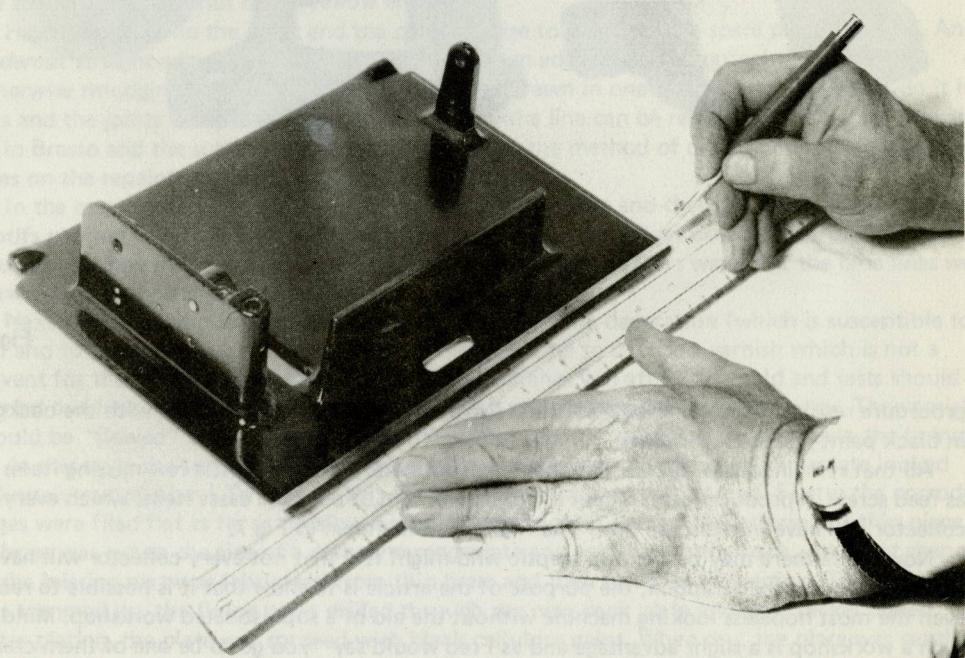
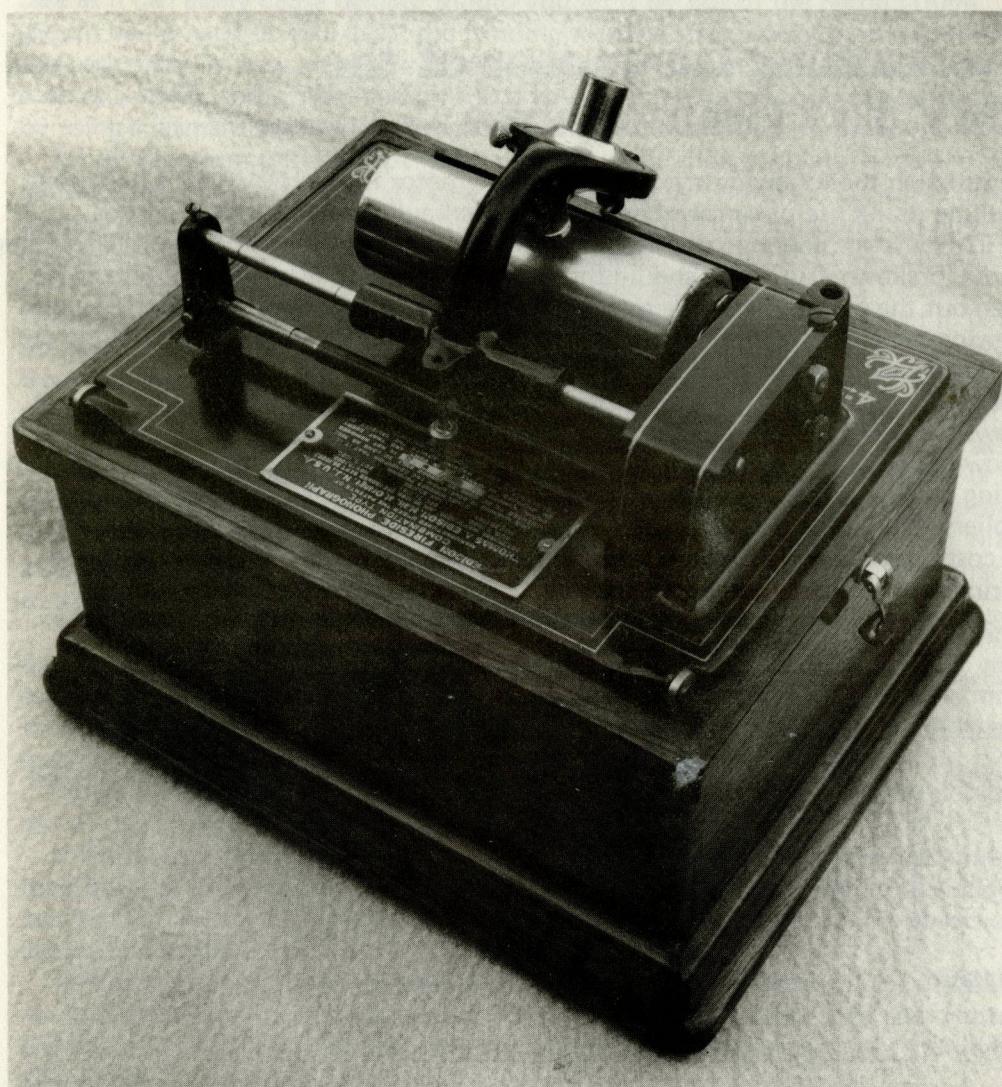


Fig. 6





THE FINAL RESULT

Fig. 7

ers to the patient and where a pulse is often ad wod and caused acts of clearly
not formed off to the white space between art human and bluonc
to the white space between art human and bluonc of human ad bluonc
one all formed art each of ad human ad human art human ad bluonc
the becomen ad bluonc going ad T-ray.

Overhauling the motor of the HMV 157 Gramophone

by P.W. Temple

Even though the following article refers to the motor in the HMV 157, I hope that it will be found useful by members that are overhauling other types of motor.

Firstly the gramophone should be permitted to completely run down. The winding handle, brake and turntable should then be removed. But before the motor can be taken out the pointer has to be removed from the speed gauge. This is done by unscrewing the covers from the speed gauge and completely undoing the clamping nut the pointer can then be pulled off its arbor.

With the motor out of the case the regulator can be removed by unscrewing the screws that hold the regulator bearings and sliding the bearing out. The centre arbor is now removed by unscrewing the screw in the wheel that is on the arbor and then sliding out the arbor. The pin in the arbor should then be pulled out with a pair of pliers. The spring barrel is now taken out by unscrewing the retaining screw in the casting and using a piece of wood and a hammer to knock through the centre bearing.

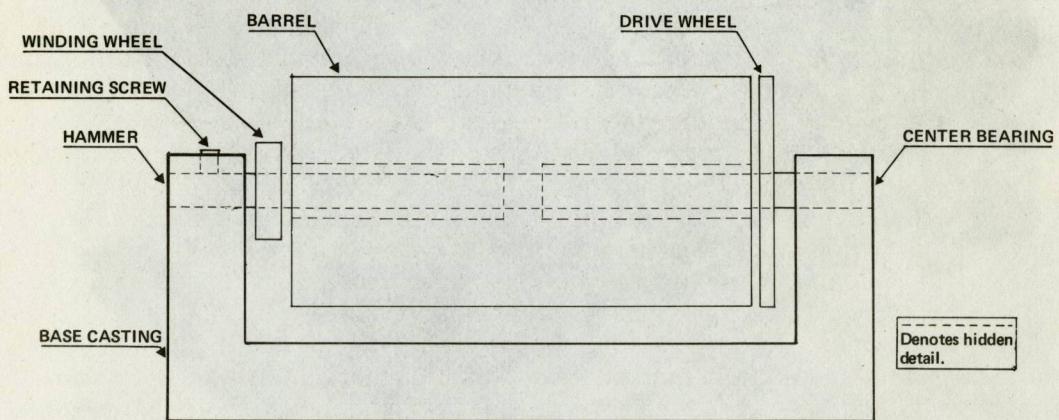


DIAGRAM OF BARREL ASSEMBLY

The two wheels in the barrel can now be pulled out. To take the spring out of the barrel you should first remove the retaining spring at the end of the barrel. You should be careful in opening the barrel lid and removing the retaining spring for if you damage the spring barrel you might be unable to replace the barrel lid and retaining spring when you re-assemble the motor. The spring should be removed with

care as it can easily cause damage should you let it fly out of the barrel. There should be no need to take apart the winding work or speed gauge mechanism unless they are rusty. If they are found to be rusty they can be treated with a rust remover such as Jenolite and screws and pins that have become rusted solid can be removed by using a dismantling lubricant, a good one of which is Plus gas formula A.

All of the motor parts except for the spring, brake shoe, regulator shoe and base casting can be cleaned by using a cleaning fluid such as "Horolene" or some other form of clock cleaner. When such fluids are used you should be careful to rinse the pieces well and dry them in warm air or jewellers sawdust as the fluids contain ammonia and this is corrosive. The governor should be taken apart for cleaning. Wheel teeth should be cleaned using peg wood sharpened to a point to get in between the teeth; soaking the wheels in the cleaning fluid also helps to remove the grease from between wheel teeth. The springs should be cleaned by scrubbing them in paraffin. They should be scrubbed with Scotchbright or brass pan scrubbers not wire wool as this is too hard. The spring should be scrubbed along its length only, as scratches across its width may cause it to break when it is put into the barrel or when the gramophone is wound. The surplus paraffin can be wiped off the spring with a clean cloth. The casing can be cleaned by wiping the bearing surface with a rag dipped in paraffin, and difficult places can be cleaned using peg wood sharpened to a point.

Graphite Grease is not really a very suitable lubricant for the main spring as in time it will only go hard. A more suitable mainspring lubricant is "Moly-slip" which can be obtained from most garages or motor accessory shops. The rest of the motor should be lubricated as directed in the diagram on the base board using a light machine oil such as 3-in-one and graphite grease, where motor grease is indicated.

When re-assembling the motor the pin in the centre arbor should stick completely out of one side of the arbor so that the turn table can locate on it.

It isn't a bad idea when taking the motor apart to replace the screws back into their holes as you go as this prevents you from losing them. It's also quite a good idea to have some small tins handy so that small screws and parts of the governor can be kept safely.

Things such as horolene or peg wood can be bought from a horological supply house a great number of which can be found in the Clerkenwell Road near Hatton Garden; and things such as rust remover and dismantling lubricant you should be able to get from a car accessory shop.

Wonderful Phonograph and Living Picture Results at the London Hippodrome

SCIENCE does not rest, it knows of nothing to stop its progress. In the realms of phonographic art, as in other things, it is constantly in evidence. The phonograph has now lent its powerful aid in enlarging the sphere of action of Animated Photography, and successfully joined itself with the always popular Cinematograph—we say "Cinematograph," because under whatever name machines that show the animated or living pictures may be called by the respective makers or exhibitors, the term "Cinematograph" properly covers them all. The conjunction of the Phonograph with the Cinematograph enormously enlarges the scope and possibilities of the latter, and brings an entirely new and novel element into the world of public catering. The first practical introduction of the double-service thus obtained has been very properly opened at one of the palace-like halls of the Metropolis—the Hippodrome. At this gorgeous place of entertainment the Phonograph and Cinematograph, operating as one machine, can be heard and seen nightly. The effect is wonderful, picture and voice in full and natural operation—both eye and ear pleased and satisfied at the same time. If the picture happens to be a dance subject, you also have the strains of the band; indeed, a perfect realization. Or, it may be a selection by the well-known quartette, the American Comedy Four, with orchestral accompaniment—the effect is just the same, excellent to a degree. We do not wonder that the results are cheered to the echo, glowingly referred to by the Press, for the all-round success is of a kind that is beyond the range of doubt. The large Phonograph used in connection with the picture portion of the apparatus, is a magnificent specimen of its kind, and was supplied for the special use at the Hippodrome by the Edison-Bell Consolidated Phonograph Company, of 39, Charing Cross Road, London. The name adopted at the Hippodrome for the combined apparatus is that of Phono-Bio-Tableaux, the instrument being owned and exhibited by the well-known entertainer, Mr. Walter Gibbons.

ANDY'S SNIPPETS:-

The demand for phonographs and records during the Christmas holidays appears to have been unprecedented. In spite of the prevailing impecuniosity, the dealers have been worried out of their lives to get enough supply to fulfil the demand. The phonograph is undoubtedly growing immensely in public favour and bids to outrival the camera.

North London buyers might do worse than pay a visit to Mr. Meadow's establishment 261, Liverpool Road. He stocks Edison moulded records, which are the best to be had, and retails them at 1s 6d each. He is always willing to let you try before you buy, which every dealer will not do. He has a good number of Edison machines also.

Mr. Meadows is better known to the cycling world, and it's becoming quite the thing now for cycle dealers to take up the sale of phonographs during the winter months. Mr. Meadows is a practical engineer, and is open to work out new improvements or ideas. By the bye I may also mention that he lets out phonographs on hire for parties at a moderate rate.

It is generally believed that zinc is the best material to be employed for the recording trumpet and there is no doubt much is to be said in its favour. But for the best results in recording the human voice I have found a thick, smooth paper funnel, moistened inside with water, to be better than anything else. The only draw-back about moistening is that such a funnel will not last long. But you can't have your cake and eat it too.

I became more and more convinced that wax is not the best material for phonograph records. The recorder rests dead on the surface and the slightest penetration of the sapphire (which is necessary) destroys all the elasticity of the diaphragm; in consequence of this resistance the whole force of the vibrations set in motion by the voice or other means has to be expended in driving the sapphire deep into the obstructive wax. This necessarily militates greatly against the free play of the diaphragm, and is responsible for comparatively poor effects.

Either, then, a more plastic, yet solid material for cylinders, or some nice mechanical device of the lever order to lessen the resistance is what is wanted to enormously augment the efficiency of the recorder now in use.



A particularly impressive G. & T. Monarch de Luxe (Style No. 14), with gold-plated fittings in ebonised case with ormolu pillars and pilasters. Dating from 1904-5, this is probably the first G. & T. machine to sport a 12-inch turntable. This runs on a ball-bearing cage surrounding the central spindle. The motor is that of the contemporary Style No. 13 (Monarch Senior), except that it is nickel-plated. Note the dial-type speed-regulator, geared to a snail-cam.

Photos courtesy of Christies

MISS MARIE NOVELLO

A famous and a very favourite pianist, Miss Marie Novello, has paid the supreme penalty and is no longer with us. We have to record the death of this lady with very great regret.

The deceased artist was born at Maesteg in Wales, and evincing as a little child great precocity in music, was taught the piano first by her father in order that she might accompany him in his songs. She was then placed under Madame Novello-Davies by whom she was adopted. She later journeyed to Vienna, where she became a pupil of the great Leschetizsky, who among others, had trained Paderevski. Back in London, after her training, she came under the notice of Pachmann, who admired the young girl's playing and assisted her to get engagements.

Miss Novello has played at all the leading concert halls in England, always with great success, as she was a most brilliant player and a fine artist. Like many other fine artists, she for several years appeared regularly on the variety stage throughout the kingdom, having started at the London-Coliseum in 1916. She enjoyed playing to music-hall audiences, and declared that she gained much artistic experience and a greater breadth of view through so doing.

Miss Marie Novello played exclusively for the Edison Bell Co., and her brilliant records have given pleasure to many thousands. She was of strikingly handsome appearance and of kind, and generous disposition.

MR. ALEXANDER PRICE

We are sincerely sorry to learn of the death of Mr. Alexander Prince, a great favourite with the public of the variety theatre, and freely accorded the title of the Concertina King, by which he has been known for many years. He was undoubtedly the greatest concertina player of his day, and the rich, powerful tone and expression he could produce showed off capabilities in the instrument few would have deemed it capable of possessing. In his hands the concertina was made to sound almost like an orchestra.

Alexander Prince has made records for the Edison Bell Co. for 25 or 30 years, right back into the days of the cylinder records, upon which he first recorded. With perhaps one or two exceptions, he has exclusively recorded the Edison Bell throughout all the years which have elapsed since he first started.

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An exhibition of Mr. Edison's new phonograph, especially in the reproduction of singing and the sounds of musical instruments, was given recently at the inventor's laboratory. The *Daily News*' correspondent says that experiments were made with the piano, violin, cornet, and clarionet, separately and together. For many weeks the inventor has been at work adapting the instrument to music. For recording the music of the piano a funnel of cardboard 5 ft. long and 2 ft. in diameter at the bell, was placed with the bell above the strings of the piano and the small end at the mouthpiece of the phonograph. The version of some chords and a polka was clear, distinct, and musical. Even the vibration of the strings when the chord was struck was perfectly audible, and the result loud enough and musical enough to give pleasure to a sensitive ear. With the funnel for magnifying the sound placed on the machine, the music sounded as the music of a piano might come through a thick partition. Every note could be heard, but much of the musical effect was lost. The phonograph's reproduction of music was invariably a trifle sharper in pitch than the original. Of the different instruments tried, the cornet gave back the loudest and clearest tones, easily distinguished twenty or thirty feet from the diaphragm.

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